The Timing Effects of Reward, Business Longevity, and Involvement on Consumers' Responses to a Reward Program

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Managers could elicit customers' repeat purchase behavior through a well-designed reward program. This study examines two extrinsic cues - business longevity and timing effects of reward – to determine the consumers' perceived risk and intention to participate in this kind of program. Moreover, this study discusses how different levels of involvement might interact with these two cues. An experiment with a 2 (business longevity: long vs. short) x 2 (timing of reward: delayed vs. immediate) x 2 (involvement: high vs. low) between-subject factorial design is conducted to validate the proposed research hypotheses. The results show that an immediate reward offered by an older, more established, firm for a highly-involved product, make loyalty programs less risky and consequently attract consumers to participate. Interestingly, immediate rewards that are offered by older firms for a product that customers are less involved in has the opposite effects. Managerial and academic implications are further presented in this study.

Keywords: timing of reward, business longevity, involvement, perceived risk, and reward program

Manajer dapat membuat pelanggan melakukan pembelian ulang melalui program reward yang didesain dengan baik. Studi ini menguji dua variabel eksternal – jangka waktu berbisnis dan efek dari waktu pemberian reward – dalam menjelaskan persepsi resiko dan niat konsumen dalam berpartisipasi sebuah program reward. Studi ini juga mendiskusikan efek interaksi dari keterlibatan konsumen pada produk terhadap dua variabel eksternal tersebut. Sebuah eksperimen menggunakan between-subject design: 2 (jangka waktu berbisnis: lama vs. pendek) x 2 (waktu pemberian reward: ditunda vs. segera) x 2 (keterlibatan: tinggi vs. rendah) dilakukan untuk menguji secara empiris hipotesis yang dikembangkan. Hasil analisa menunjukkan bahwa reward yang di-segera-kan dan ditawarkan oleh perusahaan yang beroperasi lebih lama dengan produk yang memiliki keterlibatan tinggi menjadikan program reward dipersepsikan memiliki resiko yang lebih rendah dan konsekuensinya menjadikan konsumen memiliki niat untuk berpartisipasi yang lebih tinggi. Menariknya, reward yang di-segera-kan yang ditawarkan oleh perusahaan yang lebih tua untuk produk yang memiliki keterlibatan rendah memiliki dampak yang sebaliknya. Implikasi manajerial dan akademis dipresentasikan lebih lanjut dalam studi ini.

Kata Kunci: waktu pemberian *reward*, jangka waktu berbisnis, keterlibatan terhadap produk, persepsi resiko, dan program *reward*

Introduction

Over the past few decades, customer loyalty has been a popular issue for academia and business. Since enterprises can get long-term benefits depending on the customer lifetime value (CLV), the survival of an enterprise is decided by building and maintaining relationships with its customers (Venkatesan and Kumar, 2004; Meyer-Waarden, 2007). One of the most popular tools to make consumers be loyal to the company is through loyalty programs (O'Brien and Jones, 1995). Loyalty programs, which are often called reward programs, have usually been introduced to build customer loyalty through planned reward schemes, which are based on the customers' purchase history (Yi and Jeon, 2003; Liu, 2007).

Currently, there are two streams of reward program studies: *effectiveness* and *design* perspectives. The first stream focuses on whether a loyalty program is effective in retaining customers and in making them spend more on the firm's products. According to Leenheer, van Heerde, Bijmolt, and Smidts (2007), customers who are members have an average *wallet share* of 36%, which is 29 percentage points higher than non-members in the retailing context. A recent study by Liu and Yang (2009) revealed that a reward program has greater benefits for larger airlines than for smaller ones. Another study by Bolton, Kannan, and Bramlett (2000) showed that customers tend to report fewer complaints to the financial services providers when they join reward programs. Further, Lewis (2004), who used the longitudinal data from 100,000 customers of online stores, reported that non-members spend $13 less than members. In summary, it is suggested that a reward program is effective for increasing wallet share and in retaining existing customers. Finally, a recent study by Lee, Capella, Taylor, Luo, and Gabler (2014) reported that hotel chains increase their operating income for about 12.20% due to reward programs.

The second stream examines what kind of reward program design might attract customer participation. For example, the study of Keh and Lee (2006) showed that customers prefer delayed and direct rewards when they are satisfied with the services that the firm offers. How-

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ever, customers prefer immediate and indirect rewards when they experience dissatisfaction with the provided service. In a series of papers, Kivetz and Simonson (2002, 2003) reported that a reward program should be designed to fit the perceived effort that customers have, in order to increase their perceived value toward the program. The study of Zhang, Krishna, and Dhar (2000) suggests that immediate incentives are effective in getting consumers to switch away from competing brands, while delayed incentives will retain consumers by rewarding their future purchases. This study is in line with the second stream, and focuses more on the timing effects of reward (Dowling and Uncles, 1997; Yi and Jeon, 2003).

Consumers who are uncertain about the outcomes of their purchase decisions face one or more dimensions of perceived risk (Bettman 1973, 1975) and therefore engage in risk-reduction strategies (Mowen, 1987), including searching for and processing more information (Dowling and Staelin 1994) or relying on extrinsic cues, such as business longevity (Desai, Kalra, and Murthi, 2008). In the real business situation, reward programs with immediate rewards are used extensively by younger firms to attract customers. On the other hand, delayed rewards which are employed by older firms in order to lock-in customers are more valuable in the long run. The question that remains is how timing of reward and longevity could influence consumers' responses toward loyalty programs, particularly when consumers have different level of involvement toward the product?

In addition to that, participating a reward program should regard the role of consumers' involvement toward the product (Zaichkowsky, 1985). When consumers have higher stakes in the participation because they perceive more risk, they tend to engage more in risk-reduction activities (Cox and Rich, 1964; Dowling and Staelin, 1994). This study further investigates whether timing of rewards and business longevity interact with consumers' involvement toward the product that determine the level of their risk perception and intention to participate toward a reward program. This is an important contribution for a reward program literature that mostly discussed about consumers' perceived value (Meyer-Waarden, 2013; Mimouni-Chaabane and Volle, 2010, Omar, Alam, Aziz, and Nazri, 2011; Xie and Chen, 2014; Yi and Jeon, 2003) and few examines from risk-reduction perspective (Cox and Rich, 1964; Dowling and Staelin, 1994).

Literature Review

Timing of Reward

Based on the availability of the rewards that members can redeem, reward timing is classified into two types: *immediate* reward, and *delayed* reward (Dowling and Uncles, 1997; Yi and Jeon, 2003). *Immediate reward* includes those rewards which are given after every purchase of a main product, in order to offer a feeling of belonging immediately: in such ways as by offering a scratch card, a discount, or a price cut. A case in point is a restaurant that may provide a $10 immediate discount off the current bill to a customer who spends $100 at the restaurant (Keh and Lee, 2006; Noble, Esmark, and Noble, 2014). On the other hand, the *delayed reward* refers to rewards which are provided after accumulative purchasing times, rather than only during consumption. For example, a movie theater may provide a free ticket to a customer after every 10th visit (Keh and Lee, 2006; Noble et al., 2014). In this study setting, *immediate rewards* refer to benefits and incentives that are experienced at the point of transaction. This can be viewed as coupons offered to customers at the point of sale. Conversely, delayed *rewards* are benefits and incentives that are obtained or redeemable after consecutive purchases.

Business Longevity

In many purchase situations, consumers who are uncertain about the outcomes of their purchase decisions engage in risk-reduction strategies (Mowen, 1987). According to Desai et al. (2008), business longevity acts as a useful extrinsic cue to the quality of the firm and its products, and thus reduces consumers' perceived risk. When consumers have little or no information about the quality of the firm's products, business longevity serves as experience and survival cues (Desai et al., 2008). As experience cues, business longevity ensures that a firm has reliable and efficient services (e.g., Berry and Parasuraman 1991; Zeithaml, Parasuraman, and Berry, 1990). As survival cues, consumers may infer that a firm that has survived longer is more likely to survive in the future (e.g., Caves, 1998) and they tend to want stable, durable relationships with the producers (Crosby, Evans, and Cowles 1990).

When intrinsic information available, if the firm provides goods let intrinsic cues dominate extrinsic ones (Miyazaki, Grewal, and Goodstein, 2005); however, extrinsic cues (in this case business longevity) dominate consumers' evaluation (Boulding, Kalra, and Staelin, 1999) due to difficulties on assessing intrinsic cues, such as level of assurance or empathy (e.g., Zeithaml et al., 1990). In addition, consumers tend to use past performance record to form specific expectations about future performance (Boulding et al., 1999; Rust, Inman, Jia, and Zahorik, 1999). This study focuses on the first type of business longevity, no intrinsic information available, since the context of this study is in services domain which will heighten the role of business longevity as extrinsic cues.

Involvement

Rothschild (1984) defined involvement as an unobservable state of motivation, arousal or interest. Involvement affects a number of behavioral outcomes, including search behavior and information processing (Bloch and Richins, 1983; Celsi and Olson, 1988). Level of involvement ranges along a continuum from low to high (Antil, 1984) and varies across products and situations as well as individuals. Petty and Cacioppo (1983) proposed the Elaborate Likelihood Model to explain the effect of consumers' involvement on their attitude and behavioral intentions. It suggests that the high involvement increas-

es the motivation to process a message cognitively or through the central route, whereas the low involvement encourages peripheral processing. ELM suggests that different level of level of product involvement decided the depth and breadth of customers' dealing with product messages.

Zaichkowsky (1985) distinguishes involvement as product involvement, advertising involvement, and purchase involvement. This study focuses on the consumer's involvement with the product, and defines as the perceived relevance of the object based on the consumer's inherent needs, interests, and values (Zaichkowsky, 1985). Based on ELM model (Petty and Cacioppo, 1983), consumers pay more attention to the content of the loyalty program than the peripheral cues when they highly involve to the product. This study asserts this perspective and it is important for the company to design reward program to fit with consumers' product involvement (Iwasaki and Havitz, 2004; Yi and Jeon, 2003).

Perceived Risk

Bauer (1960) first introduces the notion that consumer behavior can be considered as an instance of risk-taking and risk-reducing behavior. Sweeney, Soutar, and Johnson (1999) conceptualize it as the nature and amount of risk perceived by a consumer in contemplating a particular behavioral decision. According to Mandrik, Fern and Bao (2005) perceived risk is defined as a subjective assessment of the probability of incurring a loss or injury and unfavorable perception by self or others. The extensive research on perceived risk has shown that consumers' perceptions of risk are central to their evaluations and purchasing behaviors (Dowling and Staelin, 1994).

In the marketing literature, perceived risk is conceptualized as involving two elements: uncertainty and negative consequences (Cox and Cox, 2001). Uncertainty pertains to the identification of purchasing goals (Huang, Schrank, and Dubinsky, 2004), including financial, performance, physical, psychological, and social goals (Jacoby and Kaplan, 1972), as well as the extent to which the consumer's buying goals will be achieved (Tan, 1999). Negative consequences represent any related costs invested to achieve these purchasing goals (Huang et al., 2004). This study asserts these two elements, uncertainty and negative consequences (Cox and Cox, 2001), form consumers perceived risk toward reward program.

Behavioral Intentions

According to Shim, Eastlick, Lotz, and Warrington (2001) and Sőderlund (2002), behavioral intention is embodied in a connection with a future behavioral act and it involves either an individual assessment of the subjective probability or the degree of effort required to perform a particular behavior in the future. Their perspective is the rejoinder between Engel, Miniard, and Blackwell's (2004) definition as subjective judgments about how consumers will behave in the future (Engel et al., 2004), and Sőderlund & Öhman's (2003) definition intention emerges "when individuals engage in future-oriented cognitive activities such as mental simulation, planning, imagination, and ruminations." These cognitive activities accumulate future expectations and then generate an intention to perform that behavior in order to convert expectation into reality. This study asserts these two perspectives that behavioral intention embed subjective and cognitive judgments about how to carry out a behavior and form expectations.

In addition, Bendall-Lyon and Powers (2004) indicate that behavioral intentions can be divided into two categories: economic behaviors and social behaviors. Economic behavioral intentions are consumer behaviors that impact the financial aspects of the firm such as purchase and repeat purchase behaviors, willingness to pay more and switching behaviors. Social behavior intentions are consumer behaviors that impact the responses of other existing and potential consumers of the firm such as compliant behaviors, and word of mouth communication. The objective of this study is to design reward program to attract consumers to participate in loyalty program, so economic behavioral intentions is the focus.

Hypotheses Development

According to Kivetz (2005), a reward program require consumers to invest a stream of future efforts (e.g., repeated purchase) that arouse consumer reactance – promotion reactance. He further argues that consumers may reduce their reactance to a reward program by choosing rewards that reinforce their intrinsic motivation to invest the required effort. When the firm offers a delayed reward, consumers may not be sure of receiving any incentives while they invest through repeated purchase, and thus it arouses consumer reactance (Kivetz, 2005). The consumers' reactance even higher when the firm is newly established, so that consumers have little external cues (experience and survival cues) (Desai et al., 2008) whether the firm remains in place when finally they want to redeem their delayed rewards. This is in line with observed phenomenon that younger firms suffer higher mortality rates (Caves, 1998). Further, consumers are more likely to be ambiguity-prone and prefer an immediate reward (Smith and Bristor, 1994; Sorrentino, Short, and Raynor, 1984) to reduce their perceived risk. Therefore, a separate but small gain is likely to relieve consumer's concern about not getting any reward and hence will be preferred compared with a single large gain – delayed rewards (Yi, Jeon, and Choi, 2013), particularly when the firm has shorter business longevity.

When the firm has greater business longevity, consumers expect that they have reliable services (e.g., Berry and Parasuraman, 1991; Zeithaml et al., 1990) and more likely to survive in the future (Caves, 1998). In this case, consumers' risk perception and intention to participate to reward program is indifferent between immediate and delayed rewards. The reason is consumers expect that the firm will deliver the promise in the future, regardless the firm's offer is immediate or delayed rewards, based on their longer track records. Therefore,

H1: Consumers tend to (a) have more perceived risk and (b) have less intention to participate when the loyalty

program offers delayed reward and the business is newly established

Criticality of the purchase decision by consumers determine their level of involvement toward the product (Zaichkowsky, 1985) as well as perceived risk (Cox and Rich, 1964). When the product is not critical (consumers less involve), consumers pay less attention to the content of a reward program and more attention to peripheral cues, such as a reward schedule (Yi and Jeon, 2003). This is consistent with behavioral learning theory (Rothschild and Gaidis, 1981), which states that the value of the reward is derived from the attributes of incentives, and not from the product itself. Since customers are less involved with the product, they are not concerned with the product, and emphasize more on the timing of reward. Consequently, consumers prefer immediate reward that will maximize their value perception (Yi and Jeon, 2003) and minimize their risk perception (Thaler, 1985). As a result, consumers' intention to participate in a reward program tend to increase.

Consumers are more likely to be motivated to process information (Petty and Cacioppo, 1986) when they have higher stakes in the participation of a reward program because they perceive more risk (Cox and Rich, 1964). However, since timing of rewards serve as peripheral cues (Yi and Jeon, 2003), thus consumers pay less attention to it and focus more on the content of a reward program. Consequently, consumers carefully evaluate reward program and prior studies indicate that consumers prefer delayed reward to immediate reward when the delayed reward is of higher value (Banks, McQuater, Anthony, and Ward, 1992; Soman, 1998). However, when consumers' information process indicate oppositely, then they are more likely prefer for immediate rewards. In other words, consumers' risk perception and intention to participate to reward program is indifferent, which is similar to the argument of Yi and Jeon (2003) for consumers' perceived value of the reward program. Hence,

H2: Consumers tend to (a) have more perceived risk and (b) have less intention to participate when the loyalty program offers a delayed reward and they are less involved in the product

According to Cox and Rich (1964), the consumer would perceive greater risk in situations in which his or her stake in the product is higher and the purchase decision is more critical for the consumer. In this situation, consumers more likely to be motivated to process information (Petty and Cacioppo, 1986). Consequently, they engage more in risk-reduction activities (Dowling and Staelin, 1994), such as prefer more established products (strong brand names) when facing greater risk. In the case of business longevity, when consumers have access to little intrinsic information, purchasing from an older firm seems to be a less risky choice, so consumers prefer an older firm to a newer firm (Desai et al., 2008). As a result, a reward program offered by an older firm generates less perceived risk and increase consumers' intention to participate.

When consumers are less involved toward the product, they less likely to be motivated to process information – ELM model (Petty and Cacioppo, 1986). The reason is their stake in the product is lower and the purchase decision is less critical for the consumer. Even so, consumers prefer more established products (an older firm) when facing less risk, because naturally consumers engage in risk-reduction activities (Cox and Rich, 1964; Dowling and Staelin, 1994). In other words, when consumers less motivated to process the information, the diagnostic value of business longevity as external cues increase (Desai et al., 2008). Consequently, consumers tend to heighten their perceived risk and less motivated to participate in when a reward program offered by newly established firm, even they are less involve toward the product. Therefore,

H3: Consumers tend to (a) have more perceived risk and (b) have less intention to participate when the loyalty program offered by the business is newly established and consumers are less involved to the offered product.

Designing a reward program from risk-reduction perspective is the main objective of this study (Cox and Rich, 1964; Dowling and Staelin, 1994). Further, this study argues that there is an interaction between timing of rewards, business longevity, and consumers' involvement toward the product on consumers' risk perception and intention to participate on a reward program. Previous discussion leads to the tentative assumption that consumers' risk perception toward a reward program is higher when the firm offers delayed rewards, shorter business track records, and consumers are less involved toward the product. Consumers tend to reduce their risk perception when they are offered immediate reward because they are more likely to be ambiguity-prone (Smith and Bristor, 1994; Sorrentino et al., 1984). The demand for immediate reward is even higher for a firm with a shorter business longevity due to younger firms suffer higher mortality rates (Caves, 1998), and thus it will compensate their greater risk perception. The pivotal role of business longevity remains in place for high or low consumers' involvement toward the product. In other words, regardless consumers' level of involvement toward the product or timing of rewards, older firm induces less perceived risk and greater intention to participate. Hence,

H4: Consumers tend to (a) have more perceived risk and (b) have less intention to participate when the loyalty program offers a delayed reward, the business is newly established, and consumers are less involved with the product.

Methods

Research Design

This research employs 2 (timing of the reward: immediate vs. delayed) × 2 (business longevity: long vs. short) × 2 (involvement: high vs. low) factorial designs of between-subject for the experiment. For this experimental design, eight printed schemes of the loyalty pro-

gram were developed in total. The stimuli were presented in the form of printed schemes of the loyalty program with a full-page of black and white magazine-type. In order to avoid the confounding affects, all designed stimuli were designed to have minimal structural differences.

Specialty Store Selection - This study used six types of specialty stores:, such as hair salons, coffee shops, steak houses, liquor specialty stores, bakery specialty stores, and fried chicken stores, which were used by previous studies (Kivetz and Simonson 2002; Yi and Jeon 2003; Keh and Lee 2006). In order to select the store, this study invited 40 participants (graduate and undergraduate students) to rate their involvement in each specialty store by using the 11-items of Personal Involvement Inventory (PII) scales developed by Zaichkowsky (1985). Eventually, the bakery specialty store was marked for high involvement ($\bar{X}$=5.562) and the liquor specialty store for low involvement ($\bar{X}$=3.413). The low score for the liquor specialty store may refer to those participants that all are students, who generally have less intention to drink or less capability to buy. The fictitious brand name for "Kara's Cake" was used for the bakery specialty store and "CONNOISSEUR" was used for the liquor specialty store.

Timing of Reward Selection – Based on the procedures of Yi and Jeon (2003) and Keh and Lee (2006). The reward program of this study is developed based on the procedures of Yi and Jeon (2003) and Keh and Lee (2006) and is a card-based, in which customers who want to participate in the program need to show their card that already stamped 5 times, so that they can redeem a free voucher of one the provider's product on the 6th visit. To operationalize immediate rewards, this study designs customers will receive 20% discount in the next visit for a specific product of the provider. The value of the specific product is equal between immediate and delayed rewards.

Business Longevity Selection - To control the age of the firm, this study used the Study 1 of Desai et al. (2008), by having the headline "Since 1985" in the advertisement for the older firm. The year of establishment for the younger firm was 2004. Twenty-three years of difference follows the study mentioned above. Figure 1 is illustrated the developed stimulus.

a. High business longevity, high involvement, and delayed reward

Note: The translation is: Kara's Cakes since 1985.
Kara's Cakes Shop
~The special reward program to loyal customers~
We offer this special reward program
Make any cake shopping with five times in this shop, then you can get a coupon of free cake

b. Low business longevity, low involvement, and immediate reward

Note: The translation is: Connoisseur since 2008.
International Wine Shop
~The special reward program to loyal customers~
We offer this special reward program
Make any wine shopping in this shop, then you can "immediately" get a coupon of 20% off wine

Figure 1. The Stimulus of the Experiment

Measurements

Manipulation Checks - Two items of a 7-point semantic differential scale, which were developed by Keh and Lee (2006), were used to measure the timing of reward. Three items developed by Desai et al. (2008) were used to measure the business longevity. Two items were open-ended questions and one item was measured by using 7-point semantic differential scale. To ensure that the selected specialty stores were comparable and that the respondents could clearly perceive a high vs. low involvement, this study employed a 4-item 7-point Likert scale which was developed by Beatty and Talpade (1994).

Dependent Variables - Five items of general perceived risk adopted from the study of Cox and Cox (2001) based on the study of Dowling and Staelin (1994) and Rothman and Salovey (1997). In addition, this study measures intention to participate by using 2 items modified from the work of Sweeney et al. (1999). All dependent variables employ a 7-point Likert scale.

Pre-test

In order to maximize functional and conceptual equivalence during the study, the scenarios and questionnaires were written in English and then translated into Chinese using a double back-translation method. To ensure that the manipulations were successfully adopted, this study invited 64 participants (graduate and undergraduate students) for 8 developed cards. Each participant was randomly assigned to assess one of the loy-

alty programs, which was shown before they answered the questionnaire. For the timing of reward, the result shows that the pre-test participants respond differently (F=318.971, p<0.001) on immediate ($\bar{X}$=1.516) and delayed rewards ($\bar{X}$=5.266). In terms of business longevity, 96.9% of respondents could respond correctly on the year the store had been established. Moreover, participants also respond differently (F=173.225, p<0.001) between business that have been established for a long ($\bar{X}$=2.219) and a short one ($\bar{X}$=6.469). Finally, participants indicated that the "bakery specialty store" had received a higher score of involvement ($\bar{X}$=4.914) than the "liquor specialty store" ($\bar{X}$=2.859) in a significant manner (F=61.007, p<0.001).

Main Study

The data were gathered during two months of Spring, 2009. There were 360 participants, and 7 of them were discarded, due to incomplete responses. The numbers of female (56.9%) participants were slightly higher than male participants (43.1%). More than 50% of the respondents were between 21 and 25 years old. More than 75% of the participants possessed a college degree, and 24% had earned a graduate degree. Finally, because all participants of this study were students, 83% of them had a monthly income of lower than ten-thousand NT dollars (1 USD was equal to $32.50 NT at the time of the study).

The manipulation check results were also consistent with the pre-test results. Participants responded differently (F=1,696.393, p<0.001) between immediate ($\bar{X}$=1.357) and delayed rewards ($\bar{X}$=5.208). Participants could distinguish between high ($\bar{X}$=3.204) and low involvement ($\bar{X}$=4.896) in a significant manner (F=196.635, p<0.001). Finally, the participants could respond correctly about the year (95.5% was correct) and the age of the business (87.3% was correct) situated in the stimulus. Moreover, their reply to the third questions, regarding business longevity, was significant (F=471.066, p<0.001), and their response as to which firm was older ($\bar{X}$=2.571) and which was younger ($\bar{X}$=6.131) has been validated.

All the dependent variables have factor loadings greater than 0.700, and an eigen-value over 1. The Cronbach's Alpha for perceived risk was 0.900 and intention to participate was 0.841. This study also assesses the construct validity by using confirmatory factor analysis. The results indicate that the data fits the proposed model (χ^2(df) =349.038 (94), CFI (RMSEA) = 0.945 (0.088). Based on these results, it was shown that, after purification, all factors of the research constructs have good dimensionality and reliability (Hair, Black, Babin, Anderson, & Tatham, 2010).

Results and Discussion

The main effects of the timing of rewards, business longevity, and involvement are tested by using One-way ANOVA. The results indicate that participants engender less perceived risk when they are exposed to immediate ($\bar{X}$=2.737) rather than delayed rewards ($\bar{X}$=3.639) in a significant manner (F=48.896, p<0.001). Similarly, participants responses were significantly different (F=6.097, p<0.05) between the immediate ($\bar{X}$=4.343) and delayed rewards ($\bar{X}$=3.983) on the intention to participate.

Furthermore, participants distinguished between the two kinds of business longevity used in this study (F=43.368, p<0.001), and perceived more risk toward the loyalty program when the business had been established shortly ($\bar{X}$=3.604) rather than long ago ($\bar{X}$=2.748). On the contrary, participants tended to have a higher intention to participate in the loyalty program when they were exposed to older ($\bar{X}$=4.547) rather than younger firms ($\bar{X}$=3.803), in a significant manner (F=27.599, p<0.001).

In addition, different levels of involvement toward the specialty store used in this study could be noticed by participants (F=42.966, p<0.001). Specifically, participants had perceived less risk toward the loyalty program when they were less involved ($\bar{X}$=3.622) than when they were more involved with the product ($\bar{X}$=2.770). Finally, participants tended to have a higher intention to participate in the loyalty program when they were more involved ($\bar{X}$=4.691) than less involved ($\bar{X}$=3.623) in a significant manner (F=62.205, p<0.001).

In order to test the interaction effects of the two research variables, this study employs Two-Way Interaction ANOVA, which is reported in Table 1 and Figure 2. The results indicated that there is significant interaction effect between timing of rewards and business longevity on perceived risk (F=8.572, p<0.01) and intention to participate (F=4.646, p<0.05). Thus, H_1 is confirmed. The timing of reward is also interact significantly with the levels of involvement on perceived risk (F=11.528, p<0.001), while there is no significant interaction effect on the intention to participate. Moreover, the results indicate that the interaction effects between business longevity and level of involvement are only significant on intention to participate (F=5.010, p<0.05), while there is no significant interaction effect on perceived risk. Therefore, H_2 and H_3 are partially supported.

Three-Way Interaction ANOVA is used to test the interaction effects among a.) timing of reward, b.) business longevity, and c.) involvement, which is presented in Table 2 and Figure 3. The results indicate that there are significant interaction effects among the three independent variables on perceived risk (F=43.460, p<0.001) and intention to participate (F=5.599, p<0.01). Thus, H_4 is supported.

Conclusion

The main objective of this study is to examine the effectiveness of reward program based on risk-reduction perspective (Cox and Rich, 1964; Dowling and Staelin, 1994). The findings above largely support our central tenet that the effectiveness is highly dependent on the interplay among the timing of reward, the business longevity, and involvement. There are several conclusions that can be drawn. First, participants tend to perceive less risk and have a greater intention to participate in a reward program when an older or younger firm offers an immediate reward. The findings is consistent with previous

Table 1. Two-Way Interactions ANOVA

Independent Variables		Dependent Variables: Perceived Risk Mean (SD)	Perceived Risk F-value (p-value)	Intention to Participate Mean (SD)	Intention to Participate F-value (p-value)
Immediate reward	Older (n=84)	2.450 (1.023)	8.572 (0.004)	4.589 (1.271)	4.646 (0.032)
	Younger (n=91)	3.002 (1.068)		4.115 (1.352)	
Delayed reward	Older (n=86)	3.040 (0.982)		4.506 (1.184)	
	Younger (n=92)	4.200 (1.371)		3.495 (1.423)	
Immediate reward	High (n=89)	2.512 (1.071)	11.528 (0.001)	4.882 (1.036)	0.134 (0.714)
	Low (n=86)	2.970 (1.044)		3.785 (1.377)	
Delayed reward	High (n=89)	3.027 (1.048)		4.500 (1.295)	
	Low (n=89)	4.252 (1.304)		3.466 (1.322)	
Long business longevity	High (n=88)	2.341 (0.818)	0.030 (0.863)	4.909 (1.074)	5.010 (0.026)
	Low (n=82)	3.185 (1.083)		4.159 (1.264)	
Short business longevity	High (n=90)	3.189 (1.156)		4.478 (1.254)	
	Low (n=93)	4.007 (1.436)		3.151 (1.259)	

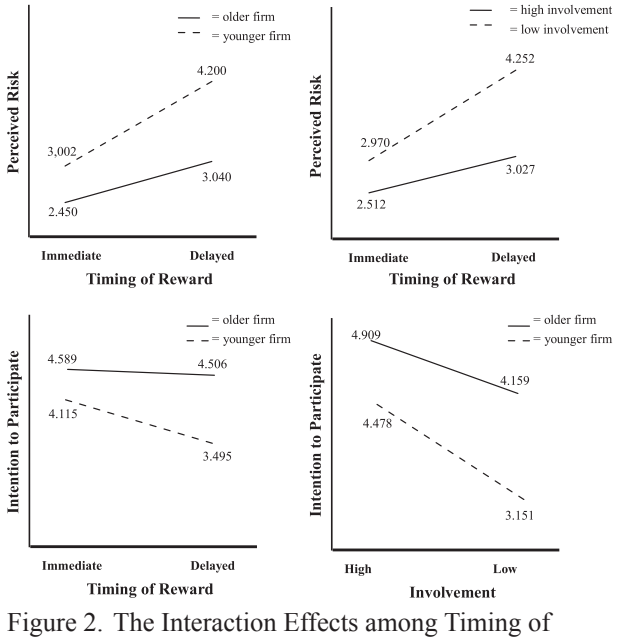

Figure 2. The Interaction Effects among Timing of Reward, Business Longevity, and Involvement

arguments that offering delayed rewards could arouses consumer reactance (Kivetz, 2005), particularly when younger firm that is generally vulnerable (Caves, 1998) offers it. To minimize their risk perception, consumers are more likely to be ambiguity-prone and prefer an immediate reward (Smith and Bristor, 1994; Sorrentino et al., 1984). In the case of greater business longevity, consumers expect that the firm will maintain their experience and survival cues (Desai et al., 2008) by delivering their rewards (either immediate or delayed ones), so that consumers have no indifferent on their risk perception and intention to participate.

Second, consumers tend to perceive less risk when they are highly involved with the product and when the firm offers immediate rather than delayed rewards. The

Table 2. Three-Way Interactions ANOVA

Independent Variables			Dependent Variables: Perceived Risk Mean (SD)	Perceived Risk F-value (p-value)	Intention to Participate Mean (SD)	Intention to Participate F-value (p-value)
Immediate reward	Older firm	High (n=44)	1.891 (0.518)		5.114 (0.888)	
		Low (n=40)	3.065 (1.090)		4.013 (1.384)	
	Younger firm	High (n=46)	3.120 (1.125)		4.656 (1.127)	
		Low (n=45)	2.887 (1.007)	43.640 (0.000)	3.587 (1.355)	5.599 (0.019)
Delayed reward	Older firm	High (n=46)	2.791 (0.819)		4.705 (1.207)	
		Low (n=45)	3.300 (1.077)		4.298 (1.137)	
	Younger firm	High (n=46)	3.258 (1.195)		4.300 (1.358)	
		Low (n=45)	5.102 (0.807)		2.723 (0.999)	

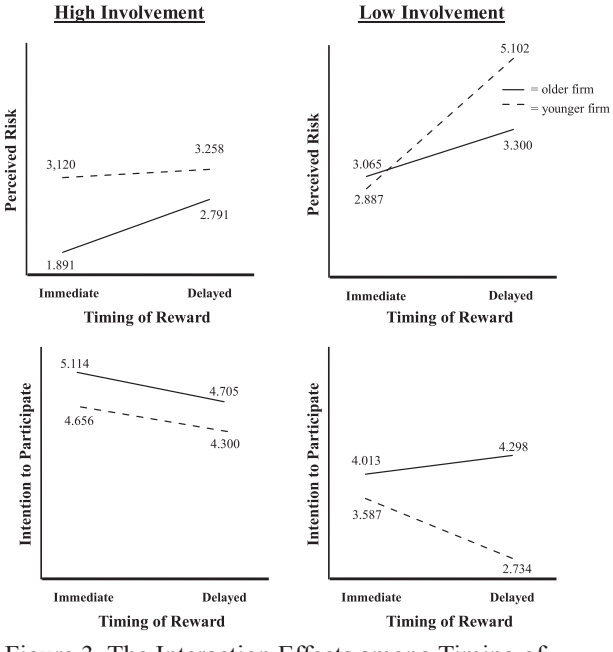

Figure 3. The Interaction Effects among Timing of Reward, Business Longevity, and Involvement

effects are even more transparent when participants are less involved with the product. The findings are consistent with Yi and Jeon (2003) that low involve product make consumers pay less attention to the content of a reward program and more attention to peripheral cues, such as a reward schedule. As a result, to maximize their value perception (Yi and Jeon, 2003) and minimize their risk perception (Thaler, 1985), immediate reward is preferable. The case is different when the consumers are highly involved with the product, in which consumers pay more intention to the content of a reward program (Yi and Jeon, 2003). When their valuation indicate that delayed reward offers greater value, consumers definitely prefer delayed than immediate rewards, vice versa (Banks et al., 1992; Soman, 1998).

Third, participants who are highly involved with a product tend to have a greater intention to participate when older firm offers a reward program. Similarly, even though participants are less involved with the product, the loyalty program of the older firm remains preferable

than to that of the younger firm. As discussed previously, consumers heighten their perceive risk (Cox and Rich, 1964) when they are highly involved toward the product. Engaging in risk-reduction activities (Dowling and Staelin, 1994), such as selecting older than younger firm is part of it (Desai et al., 2008). In a similar manners, consumers prefer a reward program that is offered by older than younger firm, even though they are less involved with the product because it is humans being to minimize any possible risk (Dowling and Staelin, 1994).

Fourth, the perceived risk of customers tends to be reduced when the older firm offers an immediate rather than a delayed reward under a high-involvement condition. A similar pattern also shows when a younger firm offers immediate reward, even though consumers are less involved with the product. The findings support our proposition that business longevity plays a pivotal role on designing a reward program. Regardless consumers' level of involvement toward the product or timing of rewards, older firm induces less perceived risk (Desai et al., 2008) and greater intention to participate.

Academic Implications

There are several academic contributions of this study. First, this study develops hypotheses based on risk-reduction perspective (Cox and Rich, 1964; Dowling and Staelin, 1994). This is an important contribution for a reward program literature that mostly discussed about consumers' perceived value (Meyer-Waarden, 2013; Mimouni-Chaabane and Volle, 2010; Omar et al., 2011; Xie and Chen, 2014; Yi and Jeon, 2003). Second, it extends Behavioral Learning Theory (Rotschild and Gaidis, 1981) that dominant in the loyalty program context with Prospect Theory (Kahneman and Tversky, 1979). In this sense, this study incorporates business longevity (Desai et al., 2008) by proposing that the decision of consumers to participate in loyalty program is part of their effort to minimizing the risk. Third, the seminal work of Dowling and Uncles (1997) mostly used by combining with other variables that is internally connected with consumers, such as regulatory fit (Daryanto, de Ruyter, Wetzels, and Patterson, 2010) or consumers' commitments (Noble et al. 2014); while other extrinsic cues rarely been introduce to extend the concept. By answering the calls of Desai et al. (2008) and incorporate it in the concept (Wu, Sukoco, and Pitchetchawal, 2011), we believe that the original concept of Dowling and Uncles (1997) can be extended.

Managerial Implications

These findings imply that marketers need to carefully design their loyalty program to be specifically related to the timing of reward. When customers are highly involved with the product, both older and younger firms should offer immediate rather than delayed rewards. However, when customers are less involved to the product, marketers of the older firm should offer delayed rather than immediate rewards when they believe that the reward has greater future value for the consumers. On the other hand, marketers of the young firm should offer immediate rather than delayed reward. By offering an immediate reward, the firm shows their loyalty to their customers, either psychologically or economically (Liu, 2007). As a consequence, customers tend to have greater intention to participate in a loyalty program. Nevertheless, the younger firm should carefully execute their plan when they offer immediate rewards for a low-involvement product, because the customers' intention to participate might be derived from their value to the program rather than from the brands or services that the firms offer (Dowling and Uncles, 1997; Rothschild and Gaidis, 1981). If marketers can persuade customers to continue with their brand or services, they will be successful in retaining new customers, which will enhance the customers' lifetime value (Venkatesan and Kumar, 2004; Meyer-Waarden, 2007).

Limitations and Future Research Directions

Although the research results are compelling, several limitations exist in this study which suggests areas and directions for further research. First, this study mainly discusses timing of reward for the direct type, while Yi and Jeon (2003) suggested that the indirect type of reward also needs to be considered in designing a loyalty program (Wu et al., 2011). Future studies can extend this study to investigate the effects of different types of reward, business longevity, and customers' involvement with the product. Second, while this study mainly operates on two extrinsic cues (timing of reward and business longevity), future studies might consider reputation, price, country of origin, or warranty as external cues. Third, the results of loyalty programs take time but in this study evaluate it at a single point in time without accounting for any temporal effects (Lewis, 2004; Liu, 2007). Future studies should consider the use of longitudinal studies, which is reported by Johnson, Hermann, and Huber (2006) that in the beginning consumers participate in loyalty program due to heighten perceived value, but as time goes by, relational factors (not the design of features of the program) become more important. Finally, for certain products or services, business longevity might reduce the consumers' perceived risk. However, for products or services in a short clock-speed industry, such as in the high-tech industry, business longevity might serve as a liability. Thus, additional research should attempt to determine the conditions in which newer firms may be perceived as superior than to older firms.

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